Carroll County Public Schools

Enrollment Projections

2019-2020 to 2028-2029

DEFINITIONS

- **Head Count Enrollment – Total number of students enrolled**

- **Full Time Equivalent (FTE) Enrollment – Total number of students based on a calculation showing how many students would be enrolled if they were all full time students. (Example: PreK students count as 0.5 FTE because they are AM only)**

- **Cohort Survival Ratio - The ratio of the number of students enrolled in a grade this year to the number of students that were in the earlier grade the previous year. (Example: The 2018 cohort survival ratio for 1st to 2nd grade is the number of 2018 second grade students divided by the number of first grade students in 2017.)**

3

METHODOLOGY

- **Cohort Survival Methodology – typical demographic technique used to do enrollment projections**
- **Utilizes actual enrollments and actual (4 year average) cohort survival ratios to project future enrollments**
- **Three decisions. Everything else is just a calculation.**
  - **What kind of average cohort survival ratio to use? We use a 4 year average**
  - **How many births to project? We are projecting births to increase 20 per year from 2018-2023.**
  - **How many Kindergarteners will attend each school? We use the historic (4 year average) kindergarten distribution to project at the school level.**

Cohort Example

MECHANICSVILLE EL

YEAR	K		1		2		3		4		5	K-5 TOTAL	PreK	PreK TOTAL	BUDGET FTE	DIFF
15-16A	62	89.5%	68	98.8%	82	103.2%	65	94.8%	92	100.0%	97	466	17	483	475	
16-17A	79	104.8%	65	91.2%	62	107.3%	88	104.6%	68	101.1%	93	455	16	471	463	-12
17-18A	80	96.2%	76	101.5%	66	109.7%	68	100.0%	88	110.3%	75	453	15	468	461	-3
18-19A	76	110.0%	88	103.9%	79	110.6%	73	110.3%	75	100.0%	88	479	16	495	487	27
19-20	74	100.1%	76	98.9%	87	107.7%	85	102.4%	75	102.8%	77	474	16	490	482	-5
20-21	77	100.1%	74	98.9%	75	107.7%	94	102.4%	87	102.8%	77	484	16	500	492	10
21-22	83	100.1%	77	98.9%	73	107.7%	81	102.4%	96	102.8%	90	500	16	516	508	16
22-23	75	100.1%	83	98.9%	76	107.7%	79	102.4%	83	102.8%	99	495	16	511	503	-5
23-24	76	100.1%	75	98.9%	82	107.7%	82	102.4%	81	102.8%	85	482	16	498	490	-13
24-25	77	100.1%	76	98.9%	74	107.7%	88	102.4%	84	102.8%	83	483	16	499	491	2
25-26	78	100.1%	77	98.9%	75	107.7%	80	102.4%	91	102.8%	86	487	16	503	495	4
26-27	79	100.1%	78	98.9%	76	107.7%	81	102.4%	82	102.8%	93	489	16	505	497	2
27-28	80	100.1%	79	98.9%	77	107.7%	82	102.4%	83	102.8%	84	486	16	502	494	-4
28-29	81	100.1%	80	98.9%	78	107.7%	83	102.4%	84	102.8%	85	492	16	508	500	6
5-3-2		1.0483		1.0067		1.0967		1.0607		1.0331						
6-4		1.0448		1.0298		1.1023		1.0618		1.0412						
4 Yr. Avg		1.0014		0.9887		1.0770		1.0243		1.0285						

Kindergarten Projections

- **Kindergarten projections (through 2022) are based on historic births and the Birth to Kindergarten cohort survival ratio**

- **Kindergarten projections (after 2022) are based on projected births and the Birth to Kindergarten cohort survival ratio**

- **Projected births are based on historic average birth totals, County population projections, and MDP population and birth projections**

KINDERGARTEN PROJECTIONS

Year	Births		Year	Enroll	%			
2002*	1921		2007	1949	101.46%		6-4	
2003*	1910		2008	1887	98.80%		108.98%	
2004*	1984		2009	1884	94.96%			
2005*	1949		2010	1849	94.87%			
2006*	1933		2011	1780	92.08%		**4 Year Avg**	
2007*	1857		2012	1744	93.91%		**107.13%**	
2008*	1767		2013	1755	99.32%			
2009*	1619		2014	1671	103.21%			
2010*	1588		2015	1666	104.91%		**10 Year Avg.**	
2011*	1577		2016	1670	105.90%		**100.69%**	
2012*	1600		2017	1732	108.25%			
2013*	1543		2018	1689	109.46%			
2014*	1577		2019	1689	107.13%			
2015*	1642		2020	1759	107.13%			
2016*	1760		2021	1885	107.13%			
2017*	1594		2022	1708	107.13%			
2018*	1620		2023	1736	107.13%			
2019*	1640		2024	1757	107.13%			
2020*	1660		2025	1778	107.13%			
2021*	1680		2026	1800	107.13%			
2022*	1700		2027	1821	107.13%			
2023*	1720		2028	1843	107.13%			

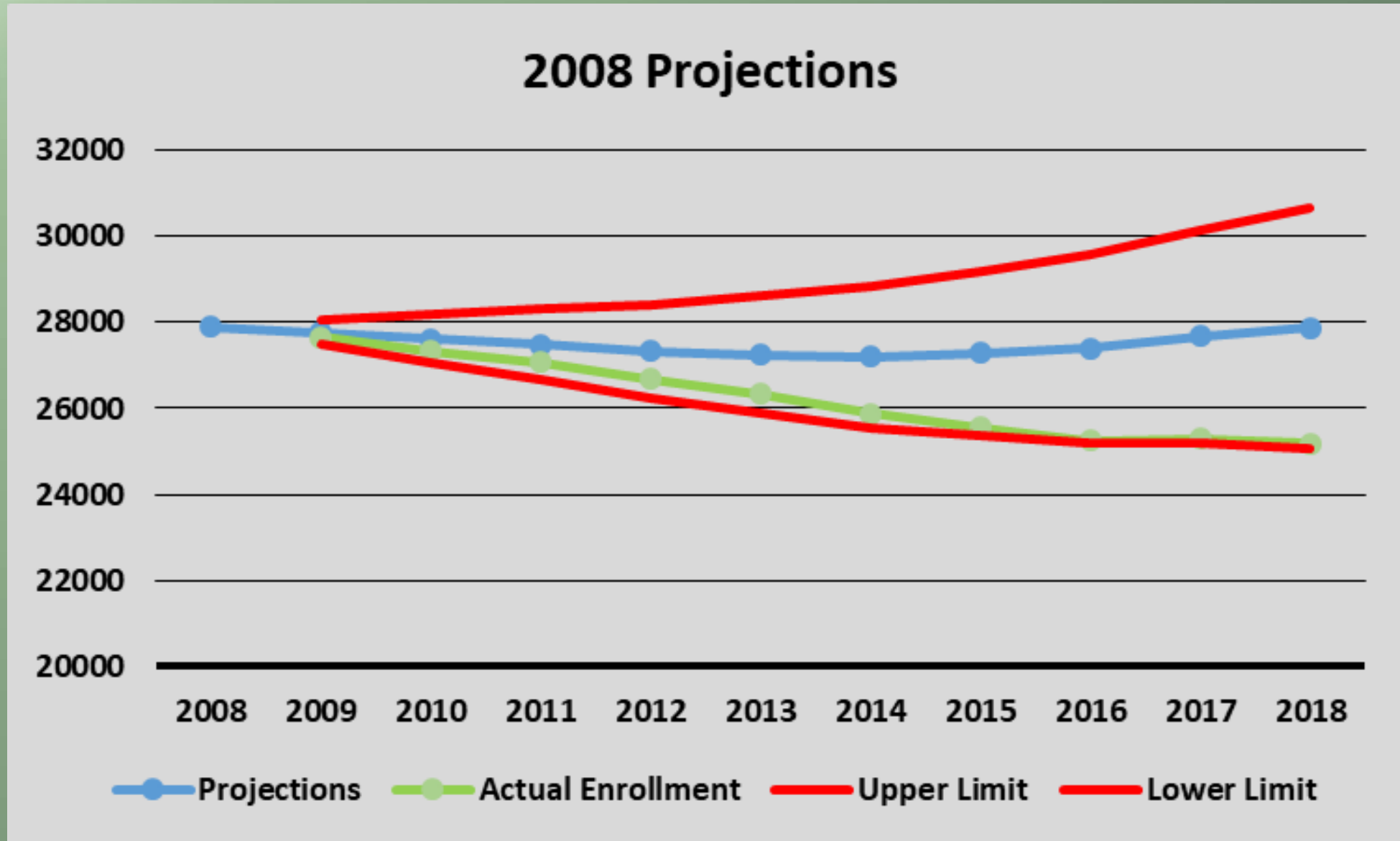Births and Enrollments highlighted in gray are projected.
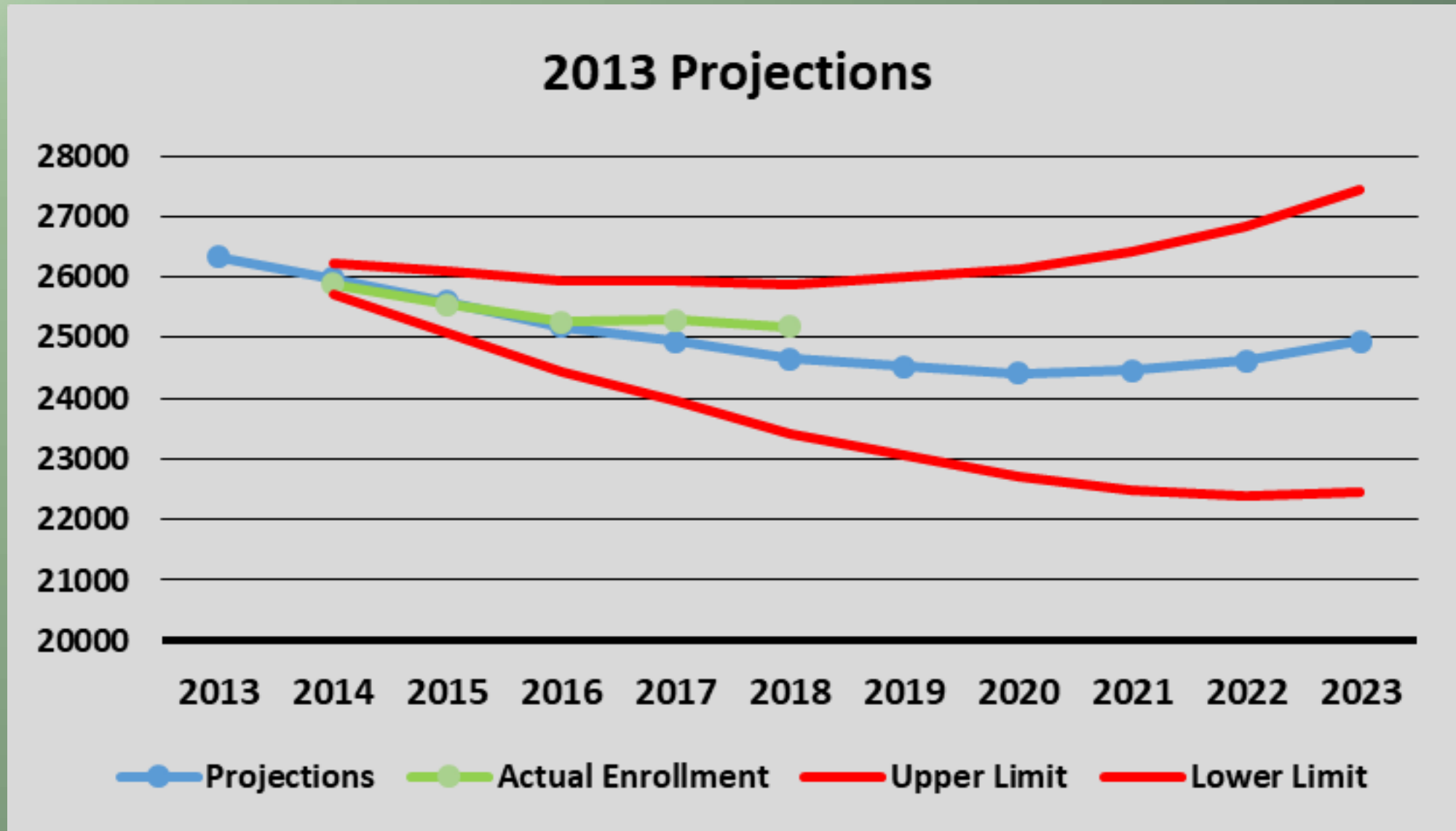
ACCURACY

Historic Accuracy

- **One Year Projections (27 year average) = 0.31%**

- **Five Year Projections (23 year average) = 2.34%**

- **Ten Year Projections (18 year average) = 9.36%**
  - **Ten Year Projections (2001-2012) = 5.67%**

2008 – 2018 Projections vs. Actuals

2008 Projections

2013 – 2023 Projections vs. Actuals

2013 Projections

Legend: Projections — Actual Enrollment — Upper Limit — Lower Limit

2018 ENROLLMENT & CURRENT PROJECTIONS

Total Enrollment

- **September 30, 2018 Enrollment was 25,179 students.**
  - **An decrease of 111 students from 2017.**

- **Decrease was not as great as the projected loss of 191 students.**

- **Projections indicate total enrollment will be remain between 25,000 – 26,000 students for the next ten years.**

2017 & 2018 Actual Enrollments

2017	2018	ACTUAL ENROLLMENTS		DIFF.
		2017	2018	
PREK	PREK	321	336	15
K	1	1732	1801	69
1	2	1718	1773	55
2	3	1748	1789	41
3	4	1742	1750	8
4	5	1867	1890	23
5	6	1908	1960	52
6	7	1877	1937	60
7	8	1962	1957	-5
8	9	2012	2102	90
9	10	2104	2034	-70
10	11	2065	2171	106
11	12	2133	1800	-333
12	K	1892	1689	-203
TOTAL		25081	24989	-92

Does not include students enrolled at following: PRIDE, Carroll Springs, Gateway, Post Secondary, and Flexible Student Support

Actual and Projected Enrollment 1998 - 2028

1998 - 2018 Historic and 2019 - 2028 Projected
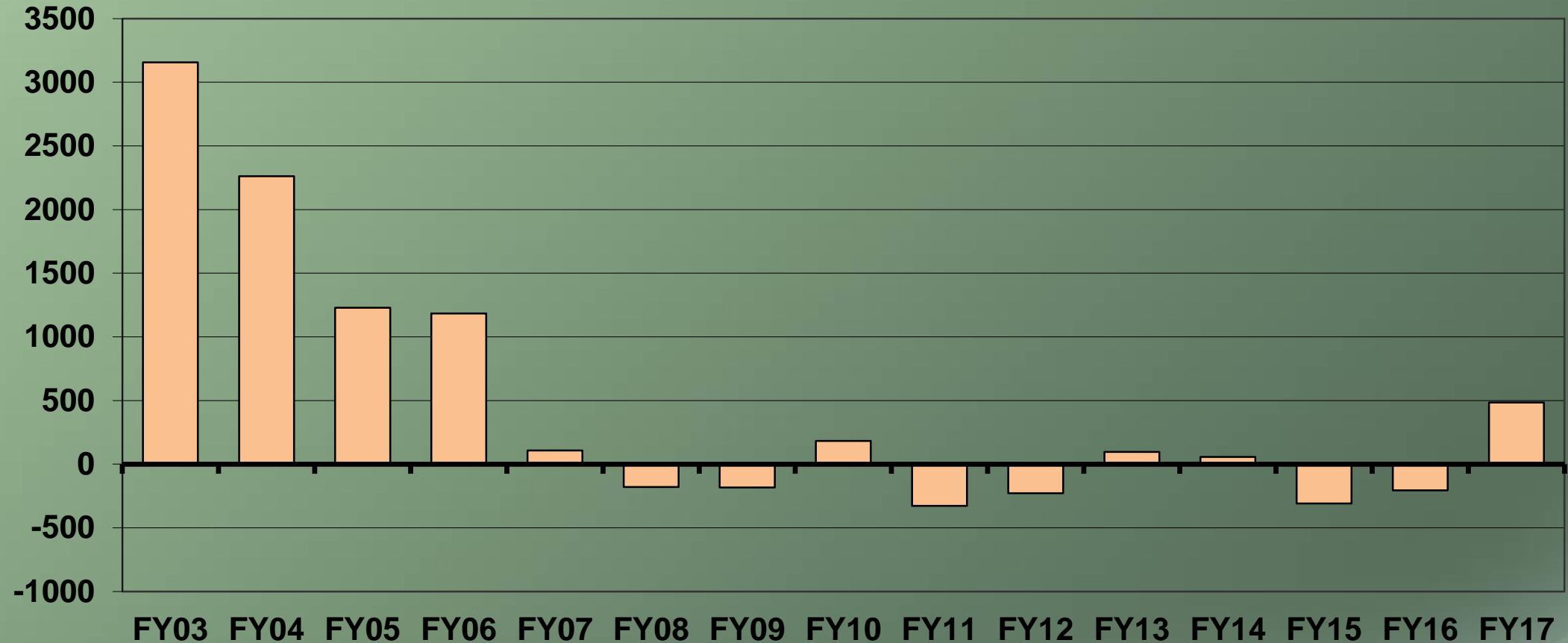Total Enrollment
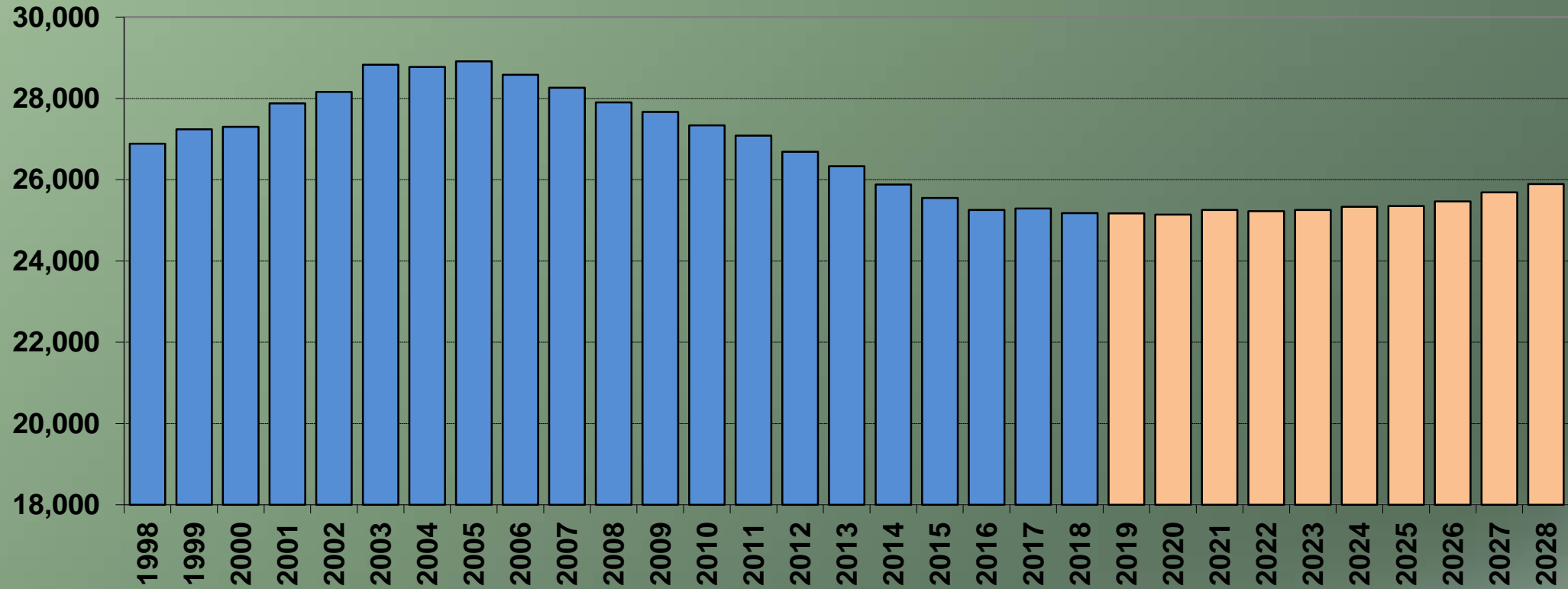
Population Trends

- **Births have increased three of the past four years**
- **Net Migration has been negative five of the past nine years**
- **The County has averaged 278 permits per year over the past ten years.**
- **Housing units sold have increased six of the past seven years, and are equal to the numbers seen in 2003.**
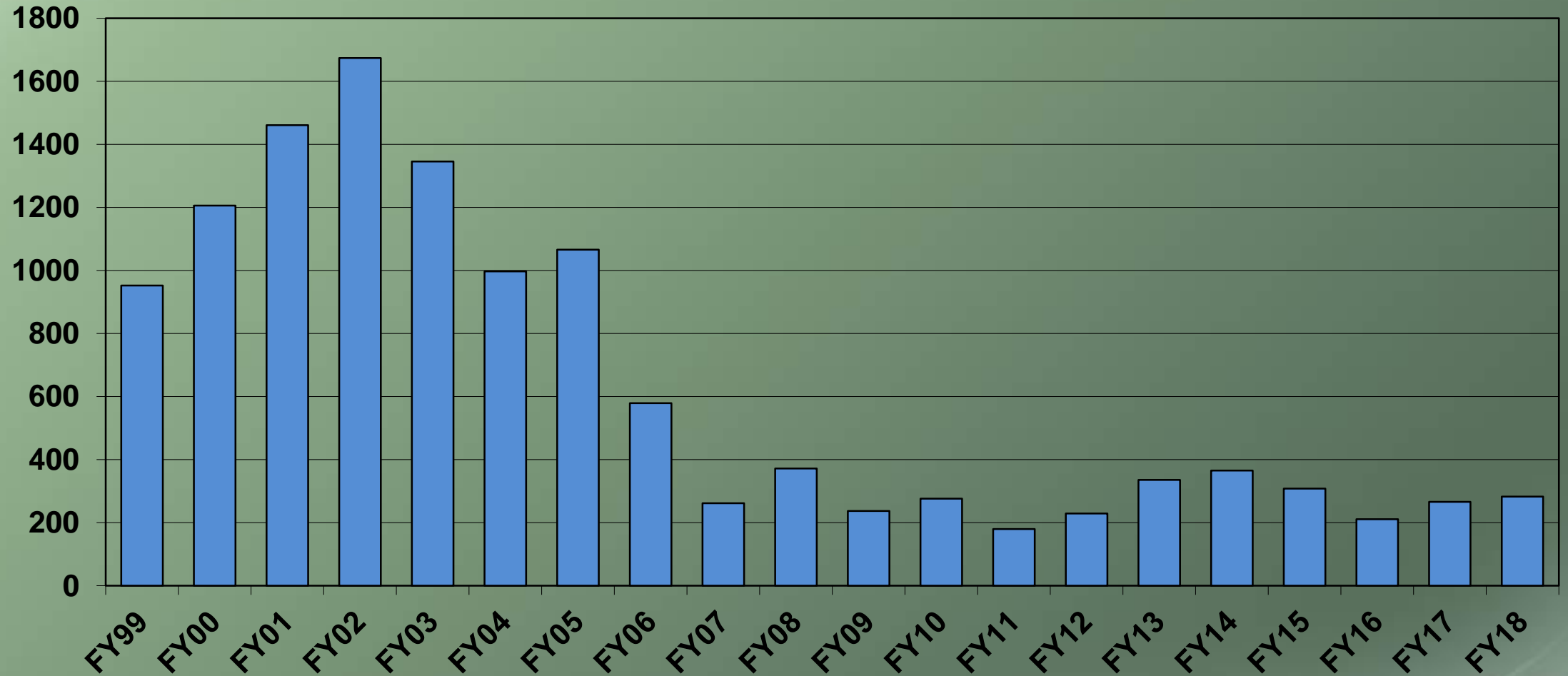
Carroll County Births, 1987 - 2017
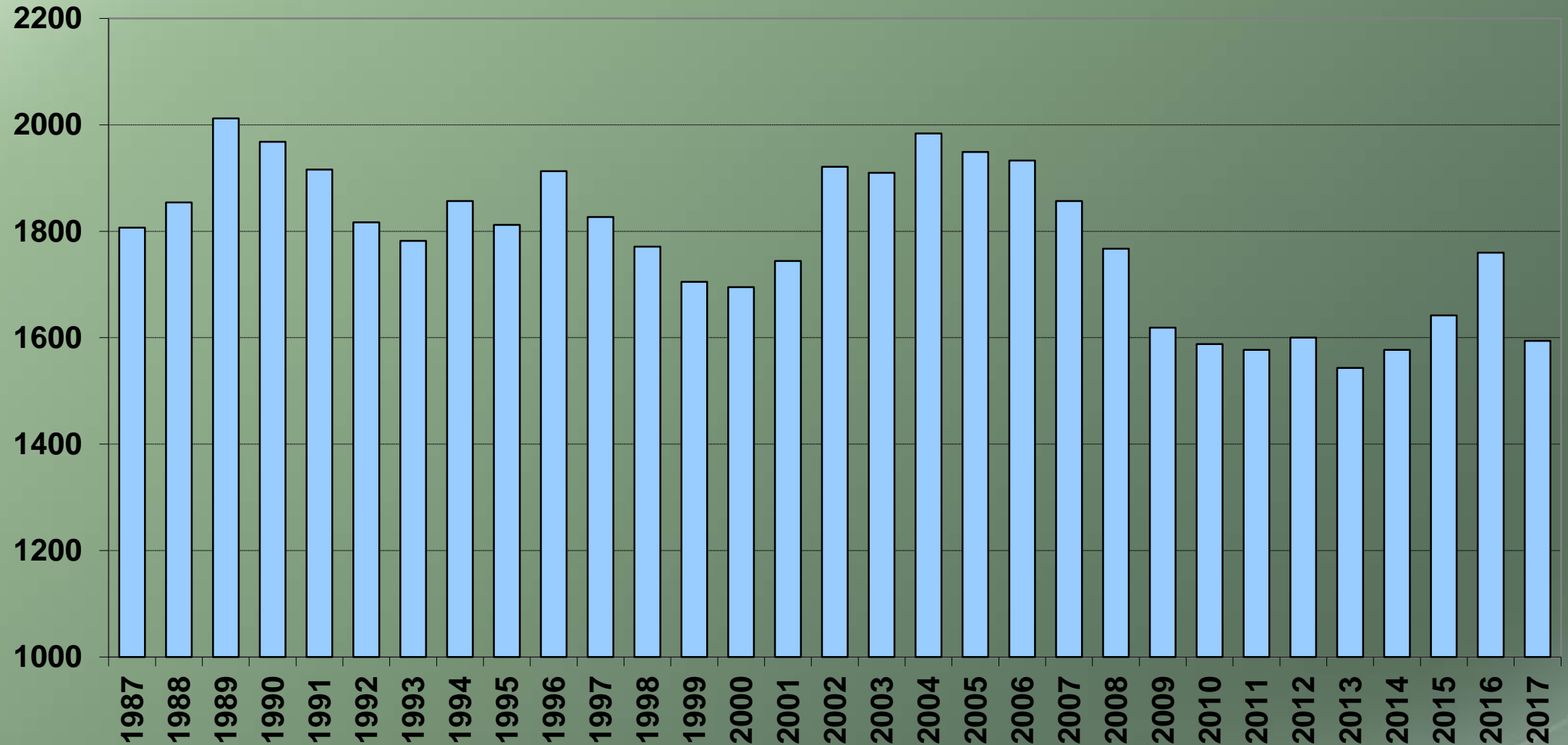
Source: Maryland Department of Health & Mental Hygiene

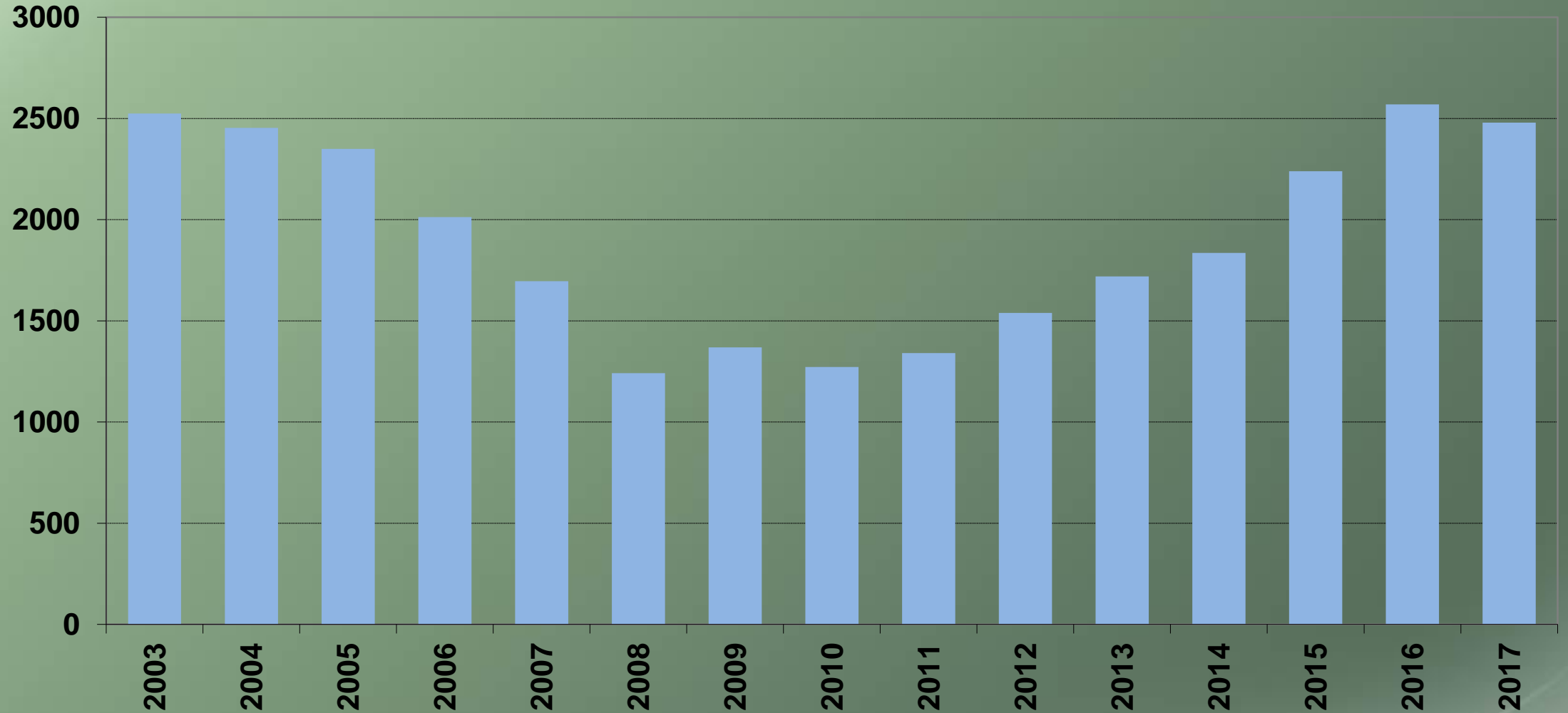**Total Migration for Carroll County for Fiscal Years 2003 - 2017**

Source: Maryland Department of Planning

Carroll County Residential Permits
Fiscal Years 1999 to 2018

Source: Carroll County Bureau of Permits

Housing Units Sold (2003-2017)

Source: Metropolitan Regional Information Systems

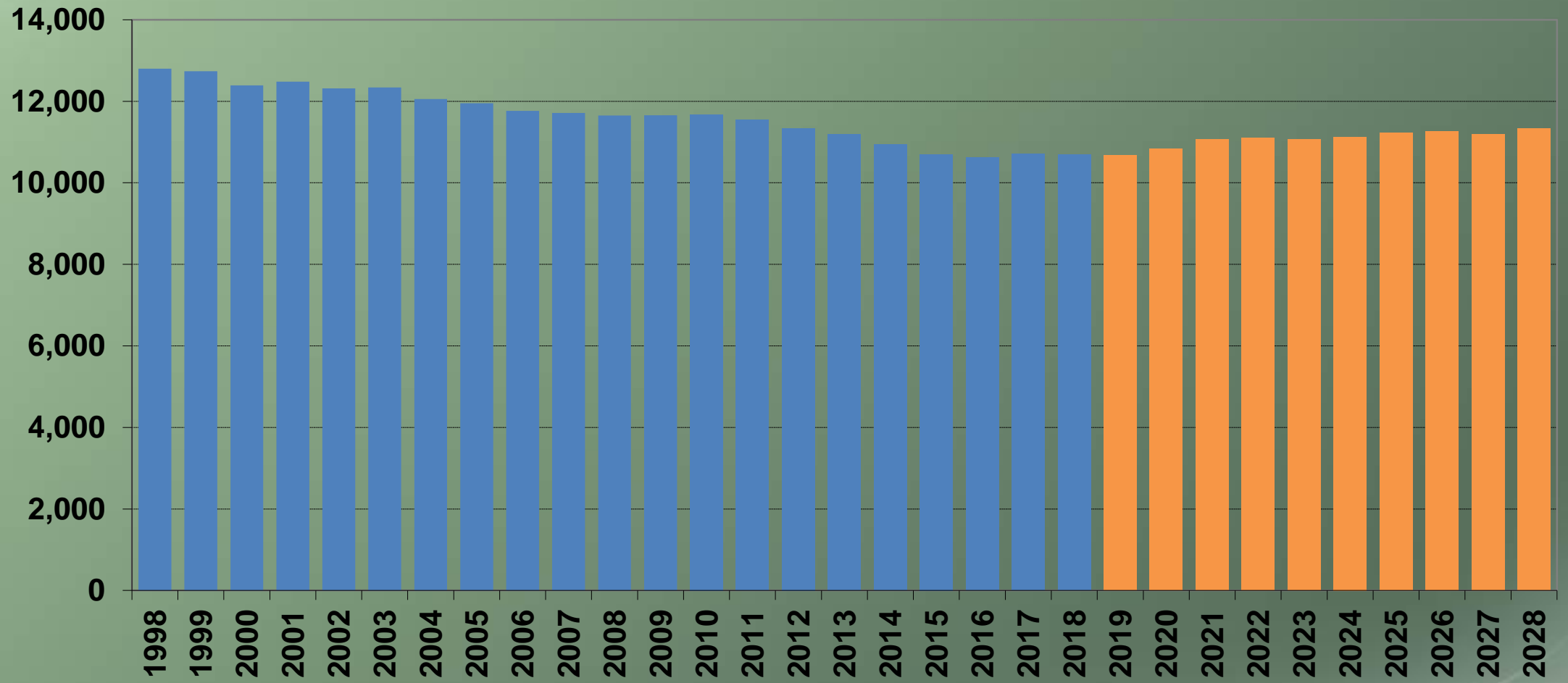# Elementary School Enrollment

- **September 30, 2018 Elementary Enrollment was 11,036**
  - A decrease of 8 students
- **All grades experienced growth except Kindergarten**
  - Incoming Kindergarten class was 219 students less than outgoing 5th grade class
- **Projections indicate enrollment will increase to almost 11,700 students in ten years.**

2017 & 2018 Elementary Enrollments

2017	2018	ACTUAL ENROLLMENTS		DIFF.
		2017	2018	
PREK	PREK	321	336	15
K	1	1732	1801	69
1	2	1718	1773	55
2	3	1748	1789	41
3	4	1742	1750	8
4	5	1867	1890	23
5	K	1908	1689	-219
		11036	11028	-8

1998 - 2018 Historic and 2019 - 2028 Projected Elementary School Enrollment

Middle School Enrollment

- **September 30, 2018 Middle Enrollment was 5,854**
  - **An increase of 3 students**
- **Projections indicate enrollments will decline slightly before increasing to almost 6,100 at the end of the ten year period.**

2017 & 2018 Middle Enrollments

2017	2018	ACTUAL ENROLLMENTS		DIFF.
		2017	2018	
6	7	1877	1937	60
7	8	1962	1957	-5
8	6	2012	1960	-52
TOTAL		5851	5854	3

1998 - 2018 Historic and 2019 - 2028 Projected Middle School Enrollment
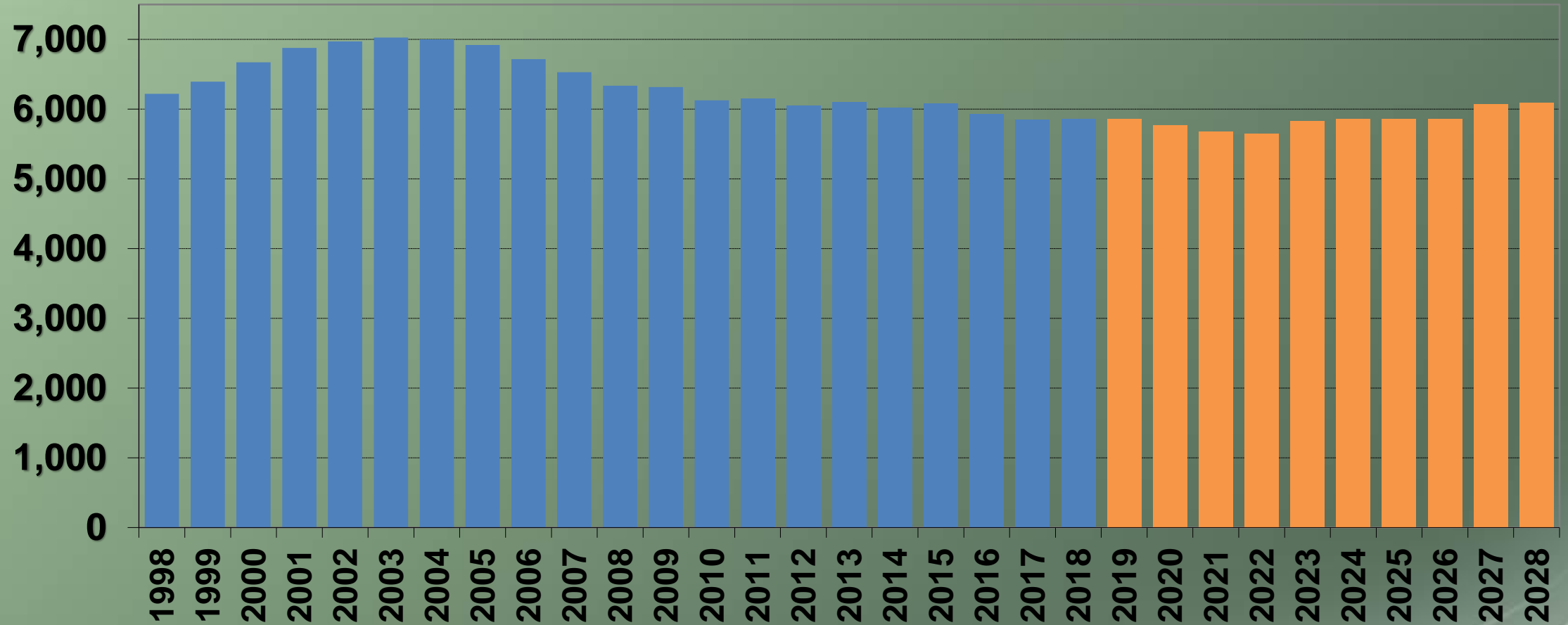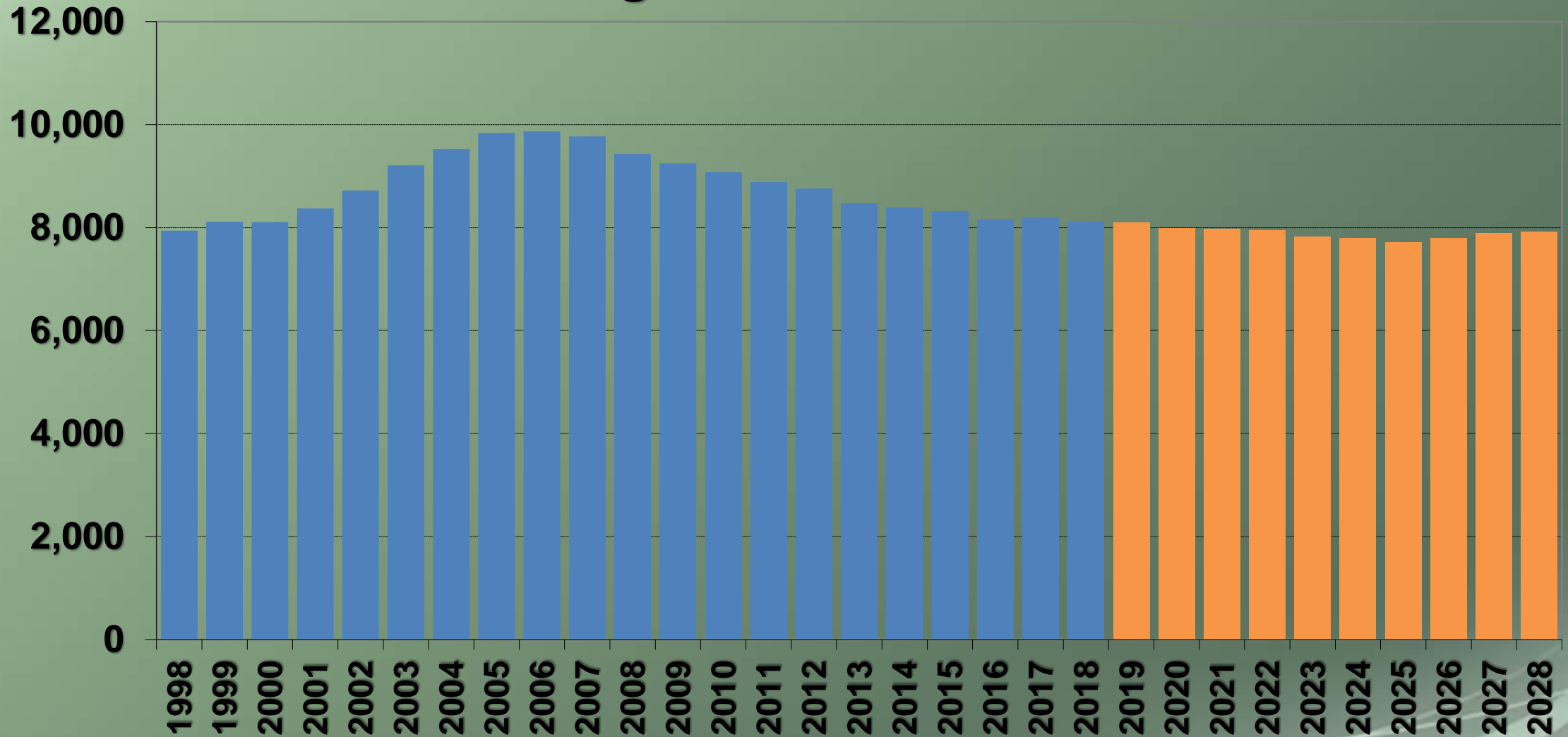
High School Enrollment

- **September 30, 2018 High Enrollment was 8,107**
  - **A decrease of 87 students**

- **Projections indicate enrollments will decline to approximately 7,700 students in 2025, before beginning to increase to almost 8,000 by the end of the ten year period.**

2017 & 2018 High Enrollments

2017	2018	ACTUAL ENROLLMENTS		DIFF.
		2017	2018	
9	10	2104	2034	-70
106	11	2065	2171	106
11	12	2133	1800	-333
12	9	1892	2102	210
TOTAL		8194	8107	-87

1998 - 2018 Historic and 2019 - 2028 Projected High School Enrollment

UTILIZATION

School Utilization

- **Utilization percentage is calculated by dividing the enrollment of a school by the capacity of a school**

- **Elementary and High schools only use State Rated Capacity for this calculation**

- **Middle schools have a State Rated Capacity and a Functional Capacity calculation**

2018 Overall Utilization

- **Total Utilization is currently 87%**
- **Elementary Utilization = 86%**
- **Middle Utilization = 92%**
- **High Utilization = 84%**

School Utilization

- **Board of Education Policy FB – Adequate Facilities**
  - **Approaching Inadequate**
    - **Elementary: 101% – 105% of Capacity**
    - **Secondary: 101% - 110% of Capacity**
  - **Inadequate**
    - **Elementary: Greater than 105% of Capacity**
    - **Secondary: Greater than 110% of Capacity**

Approaching Inadequate

Carrolltowne ES:	**2025-2028**
Runnymede ES:	**2025, 2026, & 2028**
Westminster ES:	**2025, 2026, & 2028**
Mt. Airy MS:	**2023 – 2025, 2027, & 2028**
Oklahoma Road MS	**2024 – 2028**
Sykesville MS	**2018 – 2023, 2025 – 2028**
Manchester Valley HS	**2021, & 2022**

Inadequate

Freedom ES: **2018-2028**

Utilization by Geographic Cluster

- **Elementary**
  - All Clusters between 80% - 100%
- **Middle**
  - Southern Cluster is Approaching Inadequate from 2023-2028
  - All other clusters between 80% - 100%
- **High**
  - Southern Cluster is below 80% from 2022-2025
  - Northwest Cluster is below 80% from 2018-2028
  - Northeast Cluster is above 100% from 2021-2022
  - Westminster Cluster is below 80% in 2023, 2025-2028

Summary

- **Projections are most accurate in the first five years of the projections**
- **Total Enrollment is expected to remain around 25,000 students for the next five years**
- **Total Utilization is currently 87%**
  - **Elementary Utilization = 86%**
  - **Middle Utilization = 92%**
  - **High Utilization = 84%**